

IN THE CLAIMS:

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

Claim 1 (currently amended): A data communication system comprising:

a source node adapted to transfer object data;

one or more destination nodes adapted to receive the object data transferred from said source node; and

a controller adapted to ~~control~~ set a logical connection between the source node and the one or more destination nodes,

wherein said source node is adapted (a) to obtain a reception capability of a respective destination node from said controller, (b) to set a segment size in accordance with the reception capability of the respective destination node in order to divide the object data into one or more segments, (c) to divide the object data into one or more segments in accordance with the segment size, and (d) to transfer data in each segment from said source node to said one or more destination nodes ~~via~~ with information corresponding to the logical connection set by the controller, and

wherein the reception capability of the respective destination includes a maximum payload size of an asynchronous packet.

Claim 2 (previously presented): A data communication system according to claim 1, wherein said source node is adapted to transfer data continuously in each segment to said one or more destination nodes via the logical connection.

Claims 3 - 7 (canceled)

Claim 8 (previously presented): A data communication system according to claim 1, wherein each said destination node includes a receiving buffer, and wherein said source node is adapted to set the segment size in accordance with a size of said receiving buffer in each destination node.

Claim 9 (previously presented): A data communication system according to claim 1, wherein said source node is adapted to set the segment size in accordance with the maximum payload size of each destination node.

Claim 10 (previously presented): A data communication system according to claim 1, wherein said source node is adapted to set the segment size in accordance with the lowest reception capability.

Claim 11 (previously presented): A data communication system according to claim 1, wherein the segment size of each segment is variable.

Claims 12-19 (canceled)

Claim 20 (previously presented): A data communication system according to claim 1, wherein said data communication system is a serial bus system.

Claim 21 (previously presented): A data communication system according to claim 1, wherein said data communication system conforms to IEEE 1394-1995 standard.

Claim 22 (previously presented): A data communication system according to claim 1, wherein the object data includes image data.

Claim 23 (canceled)

Claim 24 (currently amended): A data communication method of transferring object data from a source node to one or more destination nodes, said method comprising the steps of:

providing a reception capability of the respective destination node from a controller to the source node, the controller is adapted to ~~control~~ set a logical connection between the data communication apparatus and the one or more destination nodes;

setting a segment size in accordance with the reception capability of a respective destination node in order to divide the object data into one or more segments;

dividing the object data into one or more segments in accordance with the segment size; and

transferring data in each segment from the source node to the one or more destination nodes ~~via~~ with information corresponding to the logical connection set by the controller,

wherein the reception capability of the respective destination includes a maximum payload size of an asynchronous packet.

Claims 25 - 27 (canceled)

Claim 28 (currently amended): A data communication apparatus which transfers object data to one or more destination nodes, said data communication apparatus comprising:

a control unit adapted (a) to obtain a reception capability of the respective destination node from a controller, the controller is adapted to ~~control~~ set a logical connection between the data communication apparatus and the one or more destination nodes, (b) to set a segment size in accordance with the reception capability of a respective destination node in order to divide the object data into one or more segments, and (c) to divide the object data into one or more segments in accordance with the segment size; and

a data communication unit, coupled to said control unit, adapted to transfer data in each segment from said apparatus to the one or more destination nodes ~~via~~ with information corresponding to the logical connection set by the controller,

wherein the reception capability of the respective destination includes a maximum payload size of an asynchronous packet.

Claims 29 - 33 (canceled)

Claim 34 (previously presented): A data communication method according to claim 24, wherein said transfer step includes continuously transferring data in each segment from the source node to the one or more destination nodes via the logical connection.

Claim 35 (previously presented): A data communication method according to claim 24, wherein said setting step includes setting the segment size in accordance with a size of a receiving buffer in each destination node.

Claim 36 (previously presented): A data communication method according to claim 24, wherein said setting step includes setting the segment size in accordance with the maximum payload size of each destination node.

Claim 37 (previously presented): A data communication method according

to claim 24, wherein said setting step includes setting the segment size in accordance with the lowest reception capability.

Claim 38 (previously presented): A data communication method according to claim 24, wherein the segment size of each segment is variable.

Claim 39 (previously presented): A data communication method according to claim 24, wherein said data communication method is applicable to a serial bus system.

Claim 40 (previously presented): A data communication method according to claim 24, wherein said data communication method is applicable to IEEE 1394-1995 standard.

Claim 41 (previously presented): A data communication method according to claim 24, wherein the object data includes image data.

Claim 42 (previously presented): A data communication apparatus according to claim 28, wherein said data communication unit is adapted to continuously transfer data in each segment to the one or more destination nodes via the logical connection.

Claim 43 (previously presented): A data communication apparatus

according to claim 28, wherein each said destination node includes a receiving buffer and wherein said control unit is adapted to set the segment size in accordance with a size of said receiving buffer in each destination node.

Claim 44 (previously presented): A data communication apparatus according to claim 28, wherein said control unit is adapted to set the segment size in accordance with the maximum payload size of each destination node.

Claim 45 (previously presented): A data communication apparatus according to claim 28, wherein said control unit is adapted to set the segment size in accordance with the lowest reception capability.

Claim 46 (previously presented): A data communication apparatus according to claim 28, wherein the segment size of each segment is variable.

Claim 47 (previously presented): A data communication apparatus according to claim 28, wherein said apparatus and the one or more destination nodes are in a serial bus system.

Claim 48 (previously presented): A data communication apparatus according to claim 28, wherein said apparatus and the one or more destination nodes are in a system that

conforms to IEEE 1394-1995 standard.

Claim 49 (previously presented): A data communication apparatus  
according to claim 28, wherein the object data includes image data.